NETA
EDT Submitter Guidance Note

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CONTENTS

1 INTRODUCTION

1.1 Purpose and Scope

The National Grid (NG) documents referenced in section 1.2 below, indicate that NG may have to resort to taking action against any Agent whose actions pose a threat to the integrity of communications between NG and external parties or the ability of NG application servers to process data. One of these items was the threat of "excessive levels of data traffic…outside of normal operational parameters".   This document gives guidance on how Agents may modify submission behaviour to reduce the risk of NG being forced to take mitigating action. This document does not supersede the "EDT Interface Specification", but rather gives supplementary guidance.

Changes proposed in this document will facilitate more efficient use of EDT communication channels, improving the speed with which EDT submissions may be processed and the overall responsiveness of NETA systems therefore reducing the cost of data processing to the industry as a whole.

1.2 Related Documents

1. "National Grid/CT/24.12.0002 EDT Interface Specification" - 18 Dec 2000, Issue 4.

2. "National Grid/CT/24.12.0003 Data Validation, Consistency & Defaulting Rules" - 18 Dec 2000, Issue 5.

3. "National Grid/OF/CS.KBC.NETA 007 NETA Interface Standards" - 31 Mar 2000, Issue 2.

2   BACKGROUND

Since go-live there has been a growth in volumes of data submitted to NG, especially by the EDT mechanism. This has exceeded NG expectations and if left to continue to grow unchecked will lead to a reduction in performance of EDT file processing.

2.1   Efficiency of Submissions

The majority of the data records submitted do not represent changes in actual values, but are rather a re-affirmation of the existing submitted position. NG are monitoring this and have determined that in some cases only two percent of the data received, from a particular trading agent, represents a modification to the previously submitted position. When considering all PN submissions, less than twenty percent of the data received represents a modification to the previously submitted position.

Current regulation requires NG to process every submitted record upon arrival. Thus, duplicate data submissions place an additional burden on NG Information Systems, hindering the processing of data that represents an actual change in submitted position.

NG has identified a number of practises that have resulted in increased volumes of submissions at the expense of efficiency. These include submitting EDT files which contain data for groups of BMUs, multiple data types and extended period of data coverage. In some cases files are sent in as timed events or as a result of a single change in one out of several hundred data records sent.

2.2   Resolution of Time-Varying Data Submissions

In some instances Agents are submitting time-varying data which have been divided into multiple records across the submission period, where the data component is unchanging, when a single record would suffice. In one example, a participant sent the same BO data for each half-hour, covering the period from the Gate to three days hence.

2.3   Sending an EDT file multiple times

A number of agents have adopted mechanisms which resubmit the same data file multiple times. In some cases a particular file was resubmitted up to twenty times within a minute and contained several thousand records.

2.4   Polling of EDT servers

NG have determined that the client software of a number of agents is continually re-connecting and looking for new notification files, regardless of whether a submission has been made or not. Clearly if there has been no submission then there will be no ACK, ACC or REJ file awaiting collection in the NOTIFICATION directory. The action of polling places an additional load on our system.

2.5   Wait time to receive an ACKnowledgement file

During periods where NG has been processing large volumes of data, ACKnowledgment files have on occasions been delayed by several minutes. During these periods EDT clients have understood this to mean that the transmission of the EDT submission has failed and have consequently resubmitted these files to NG. This behaviour has the effect of radically increasing the data volumes being processed, and thus exacerbating the performance problem.

3   SUBMITTER GUIDANCE

3.1   Submission of Data

Initial submissions, by definition represent data covering periods for which the agent in question has not previously submitted data. Resubmissions, represent modifications to the submitted position, and are thus expected to contain only changes.

3.1.1 Resolution of time-varying data

When submitting time varying data, in the case where data values are unchanging, records should cover the maximum period allowable for the data type.

3.1.2 Initial submissions

Accurate data for the current and dayahead operational days are very important to enable effective management of the Electricity Transmission Network. NG is very appreciative of the initial submissions covering the dayahead period .

Beyond Dayahead, provision for Agents to submit data up to five days in advance is intended to facilitate Agents to submit data prior to extended public holidays (i.e. Easter), thus allowing them to leave their trading office unmanned. During normal operations data submissions beyond the dayahead operational day are not essential.

3.1.3 Resubmissions

When submitting data for periods already covered by previous submissions, NG would appreciate it if agents only submit records where the data component (see reference 1, section 7.2) has changed.

To improve efficiencies further, NG proposes the following modifications regarding the frequency with which agents send in re-submissions.

Data effective in the period	Submission Frequency
Gate → Gate + 8hrs	Agents should update NG of changes only, at most every ten minutes, unless doing so would result in missing the Gate Closure or cause operational difficulties.
Gate + 8hrs → 05:00 DAY+2	Agents should only make hourly updates to NG for changes within this period.
Forecasting Period (05:00 DAY+2 and beyond)	Agents should update NG of changes in this period at most twice a day.

3.2   Connection to NG - EDT server

EDT client software should only poll for NOTIFICATION files (i.e. make 'DIR' requests to the server) if a notification message is expected following submission of a file.

Client software should allow a reasonable time for an ACKnowledgement file to be produced before assuming transmission failure and resubmitting EDT files. NG suggests that Clients wait at least three minutes before resending data. NG is also reviewing our EDT server architecture to speed up ACKnowledgement file provision.

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AMENDMENT RECORD

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1	1	14/12/01	DJB	Initial Version

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